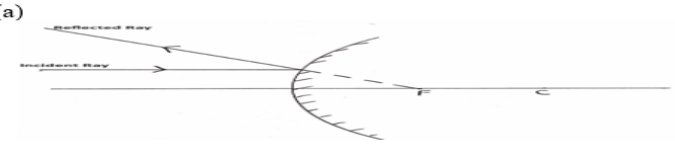
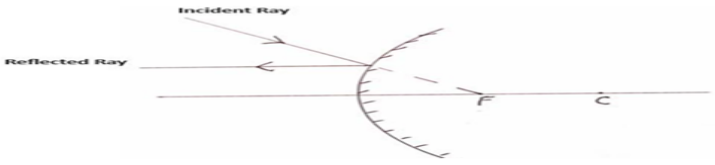
Indian School Al Wadi Al Kabir
Pre Mid-term Examination (2025-2026)

Class: X | Subject: SCIENCE (086) | Max. marks: 30
Date: 20/05/2025 | SET-II | Time: 1 hour

Marking Scheme

Sl.No	Answers		Marks
1	(D) ZERO		1
2	(C) Al		1
3	(B). Lifted ribs and flattened diaphragm		1
4	(A)Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).		1
5	(C) A is true but R is false.		1
6	(D)Ais false but R is true.		1
7	(a). (i) The wall of the oesophagus contains muscles that can contract and expand alternately. The contraction and expansion movement of the wall of the food pipe is called peristaltic movement. (ii) The small intestine in herbivores is longer than in carnivores because: Herbivores consume plants rich in cellulose, which takes longer to digest. Carnivores eat flesh, which is easier to digest, resulting in a shorter small intestine. OR (b). (i) The hydrochloric acid creates an acidic medium which facilitates the action of the enzyme pepsin and also kills any germs present in the food. (ii) The inner lining of the small intestine has numerous finger-like projections called villi which increase the surface area for absorption. The villi are richly supplied with blood vessels which take the absorbed food to each and every cell of the body.	1 ½ + ½ ½ + ½ ½ + ½	2
8	A white ppt. of barium sulphate is formed. (½ mark) $Na_2SO_4(aq)+BaCl_2(aq)\rightarrow BaSO_4(s)+2NaCl(aq)$ (1 mark) Double displacement reaction. (½ mark)		2
9	(a)The formation of lactic acid in muscles leads to cramps due to anaerobic respiration. ***Any one difference-*** Aerobic Respiration — Takes place in the presence of oxygen. Anaerobic Respiration –Takes place in the absence of oxygen. End products of aerobic respiration are carbon dioxide, water, and energy, whereas anaerobic respiration produces lactic acid and energy. (b) The alveoli provide a large surface area where the exchange of gases can take place. The walls of the alveoli contain an extensive network of blood-vessels.	1+1 1	3
10	a) $CaO+H_2O \rightarrow Ca(OH)_2$ (1 mark) b) Combination reaction- Two reactants combined to form one product		3

	xothermic reaction- Heat is evolved in this reaction (2 marks) OR a) Oxidation (1 mark) b) Rancidity (1 mark) c) Any 2 precaution (1 mark)		
11	(i) In case A as the object is kept beyond C. (ii) Real, inverted and of the same size. Diagram (iii) Virtual erect and magnified. Diagram OR	½ + ½ 1 + 1 1 + 1	5
	(i) (a)  (b)  (ii) Here f = − 12 cm, u = − 18 cm, v = ?, h = 1·5 cm, h′ = ? Mirror formula $\frac{1}{v} + \frac{1}{u} = \frac{1}{f}$ $\therefore \quad \frac{1}{v} = \frac{1}{f} - \frac{1}{u}$ $= \frac{1}{-12 \text{ cm}} - \frac{1}{-18 \text{ cm}}$ $= \frac{-1}{36}$ $\therefore \quad v = -36 \text{ cm}$ $m = \frac{h'}{h} = -\frac{v}{u}$ $\frac{h'}{1.5} = -\frac{(-36)}{(-18)}$ $h' = -3.0 \text{ cm}$	1 1 1/2 1/2 ½ ½ ½ ½	

12	a) M_2 because it gives an erect and diminished image. b) $\text{Magnification } (m) = \frac{\text{Height of image } (h_i)}{\text{Height of object } (h_o)}$ $= \frac{\text{Image distance } (-v)}{\text{Object distance } (u)}$ c) Given, $u = -60$ cm and $v = 30$ cm We know that, $m = -v/u$ $= \frac{-30}{-60}$ $= \frac{1}{2}$ or $+0.5$	1 1 1	3
13	a) Displacement reaction. $Fe + CuSO_4 \rightarrow FeSO_4 + Cu$ (1 mark) b) Cu is less reactive than Fe. (1 mark) c) Rust is Hydrated Iron (III) Oxide. In presence of oxygen and moisture in the air.		3
14	(a) (i) Absorption of light energy by chlorophyll. (ii) Conversion of light energy to chemical energy and splitting of water molecules into hydrogen and oxygen. (iii) Reduction of carbon dioxide to carbohydrates. (b) $6CO_2 + 12H_2O \xrightarrow[\text{Sunlight}]{\text{Chlorophyll}} C_6H_{12}O_6 + 6O_2 + 6H_2O$ (Glucose) (c) The opening and closing of the pore is a function of the guard cells. The guard cells swell when water flows into them, causing the stomatal pore to open. Similarly the pore closes if the guard cells shrink.	½ x 4=2 1 1	3